Abstract of the Invention

The present invention is directed to a contact lens design and methods of manufacturing, fitting and using such lenses. As an example, the contact lens may be designed to be used in an orthokeratology treatment program. The contact lens according to the invention overcomes the deficiencies of the prior art, and provides a design which allows proper fitting of a patient, whether for corrective contact lenses or for use in an orthokeratology treatment program. The ability to properly fit a patient will alleviate, at least to a great degree, corneal abrasions from poorly distributed bearing, corneal warpage from decentered lenses, edema from tight fitting lenses and discomfort. The design allows a great deal of flexibility to the fitter to enhance the functionality of the lens. The lens of the present invention includes a central zone and first annular zone located adjacent to and concentrically around the central zone. The two zones are integral with each other and the radius of curvature of the first annular or connecting zone is greater than that of the central zone. In addition, such a design provides a vast amount of alternative methods of manufacture, and lifts the constraint of requiring the origin of the radius of curvature for the first annular zone curve to reside on the central axis of the central base curve or zone.